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On the SUBJECT MATTERS and METHODS of COMPETITIVE EXAMINATIONS for the PUBLIC SERVICE. By EDWIN CHADWICK, Esq., C.B.

[Read before Section (F), at Cambridge, October, 1862.]

THE principle of competitive examinations on an open and fair field, without favour, for junior appointments to the public service, was opened by myself, and discussed at two meetings of this section, first at Dublin and next at Leeds. It has been several times affirmed in Parliament, and has been carried into extensive practice. On the occasions to which I refer, the subject was developed as a branch of economic science, as a means of ensuring administrative efficiency, and avoiding the waste of force and public money. In that point of view we should maintain our observations on its practical applications. So far as those practical applications have proceeded, in the Indian Civil Service, and in miscellaneous services at home, the testimony of disinterested, impartial, and competent observers has been decisive. I say of disinterested observers, because most who have written and spoken against the principle, may be challenged on the score of interest or of partiality, as notorious profitters by political patronage, or expectants of it. Complaints, have indeed been made by some civil officers of the old school, whose own influence or patronage is narrowed by the application of the principle, that it has supplied men of a quality above their places, nothing being said of the notorious fact, that the old system of patronage appointments supplied men of a quality below their places, and below any places in which services were required of a quality needing payment; nothing being said either by these objectors in recognition of the fact that the places themselves, and the methods of doing business in them, require to be brought up to the capacities of more intelligent officers than have heretofore sufficed. As to the improved capacity gained for the public service by the application of the competitive principle, I may give a deal of statistical evidence. Out of an average of three hundred patronage appointed cadets at the Royal Military Academy, at Woolwich, for officers of Engineers and the Artillery, during the five years preceding the adoption of the principle of open competition for admission to the Academy, there were fifty who were after long and indulgent trial, and with a due regard to influential parents and patrons, dismissed for hopeless incapacity for the service of those scientific corps. During the five subsequent

years, which have been years of the open competitive principle, there has not been one dismissal for incapacity. Moreover, the general standard of capacity has been advanced. An eminent professor of this university, who has taught as well under the patronage as under the competitive system at that academy, declares that the quality of mind, of the average of the cadets, has been largely improved by the competition, so much so that he considers that the present average quality of mind of the cadets there,—though the sorts of attainments are different, has been brought up to the average of the first class men of this university, which of itself is a great gain. Another result, the opposite to that which was confidently predicted, by the opponents to the principle, has been that the average physical power or bodily strength, instead of being diminished, is advanced beyond the average of their predecessors. Nevertheless though this is so, there is much in the subject matter of the examinations, and in the methods of conducting them, which in view of many who have paid attention to the subject require amendment for the sake of the principle itself. I am desirous, therefore, of raising a discussion in relation to those subject matters and methods, to obtain the results of, as much as possible, of the experience of members of the university who have been engaged in the important service of testing qualifications by means of open competitive examination.

In respect to the subject matters of examination for the most important competitions, I conceive that the civil service commissioners and the members of the council of military education could not, at the outset of the system, well do otherwise than adopt, as their subject matters of examination, the generally accepted course of a liberal education as nearly as was practicable. But it is one important effect of the principle of open competition, and of the practical arrangements in connection with it, that it must bring scholastic systems and principles of education and subject matters more closely than heretofore, directly in the front of actual practice, and into harmony with the practical requirements of the country.

I may go further and say that, instead of adopting any of the accustomed academic courses, the experience of the public requirements of the service must fashion those courses to the service required. It may, however, be submitted to be for the advantage of academic institutions that it should do so. The requirements for the leading competitions—those for the scientific corps of the army and the Indian civil service have led to the extension and formation of large preparatory schools, for giving training for those public examinations, which, for myself, I should have preferred to have given by our own chief public schools. The principal of one large public school advised a friend of mine who had a son to prepare for a competitive examination, to take him to one of the special preparatory

schools in preference, as being superior in efficiency for the special purpose. I believe that those schools are of considerable and increasing comparative efficiency, for this reason, that they are themselves, by the competitive principle, put under the most direct and powerful competition with each other. Not only do the schools compete, but each master of each head of competition, competes with the teachers of that same head of competition in all the other preparatory schools. I have made inquiries of the head masters of several of these successful training schools, and I may express a confident opinion that they would all agree in the importance of ridding the competitions to the uttermost of everything necessitating or favouring cram. They would next agree that the present topics of competition are too numerous. It is true that the competitor may take up a lesser number of heads than are put forth, but practically to permit, say five heads of competition, at the same time, amounts to prescribing five. Mr. Canon Moseley, in one of his reports, adduces evidence of the general fact that as you spread the requirements wide, so you get shallower or lower results on the average in each head of competition included.

The experienced heads of preparatory schools would, I believe, further agree that it is much better for teaching, and necessary for the avoidance of cram, as I should maintain that it is better for the public or for private service—that the requirements should be narrow but deep, rather than wide and shallow. In my opinion, it is a better test of intellectual capacity for the public service, to try the power of mastering one subject thoroughly, or a few things well, than of attaining many things only moderately or passably well. We are not, however, considering the extent of the requirements generally desirable, but what shall be the subjects of competition, for you may include as many as you please of accomplishments for pass or qualifying examinations, whilst you exclude them from competition. We throw open then for consideration, the existing requirements, and consider only those to be imparted for the future. If a man has this or the other attainment, forming part of a liberal course of education, it is said to be hard to deprive him of the benefit of its estimation. We are, however, considering not what he has but what he ought to have, not what may render him an accomplished member of elegant society but what will make him a good public servant, or in private service enable him to yield a full equivalent for the pay he receives and to sustain responsibility in leading positions. We shall come to a sounder decision on these questions, if, considering of professional service for ourselves, we consider of the qualities which we may need, and for which we are prepared to pay in case of need. These will be the qualities most required for the service of the state.

Considering how we may best reduce the number of subjects of

competition, I would propose first to omit history. A man ought to know the history of his own country, it is said. Yes, but we ought not to make a range of the events and characters of some thousand years of the past, and too much of the bad, the subject of competition, at the expense of proficiency in one or other of the sciences,—the purer and the better. Moreover, history as a topic is one great field of cram, of reliance on memory, and of dodging.

The next subjects which I submit for omission are the literatures of different countries. Ought not a gentleman to be versed in polite literature, it is said? Certainly; but it is not needful that it should be the subject of competition, at the expense of proficiency in other and indisputably better and more needed subject matters of training. Literature is moreover another great field of cram and dodging examinations, giving opportunities of trick, yielding chances to the idle who have read for amusement, over the diligent, who have laboured for the serious business of life. The literatures may be left for cultivation to social influences, and to their own attractions and advantages as recreations. As tests, moreover, they are of an inferior order. These two heads, histories and literatures, being dismissed as subjects of competition, we come to those which are admitted as means of mental training and superior tests of aptitude. First in appointed order are the mathematics. It is submitted that taking them as a main test, whilst the basis of examination is made narrower, it should be made deeper or rather longer, and that double the time should be given to it, two days instead of one, four days in place of two. This would have the advantage of giving the slow but sure a fairer chance against the quick, and may be the superficial, and would render the examinations less painful to the nervous.

One opinion I find increasing in strength is that greater prominence should be given to the experimental sciences, and that indeed, for the scientific corps of the army they should be made the chief topic for competition, and of course for preparatory education. The grounds of this opinion are that mental exercises in the experimental sciences include exercises of the faculties in induction as well as in deduction;—that eminence in the pure mathematics has not been in this country, or in France, accompanied by equal eminence in the applied mathematics, or in practical science, in the public service; that the experimental scientist is non-practical;—that if it were put to a chief of engineers, or to a mechanical or eminent civil engineer in this country, which of two competitors he would choose as an assistant, the one who was eminent in pure mathematics, or the one who was eminent in the experimental sciences, the latter would from experience be the one chosen. I confess that I give a strong preference to the experimental sciences, from what I know of the failures of the French engineers, who are pre-eminent

in pure mathematics, and from what I know of the failures of pure mathematicians at home, of which I could give, and have, indeed, elsewhere given examples. As a mental exercise, I must consider that exercises in logic might well take the place of much of mathematics, and for this reason—that I find skill in clear logical examination and exposition, and arrangement of business, to be rare qualifications amongst candidates for the public service. You want some subject matters of business frequently examined and clearly arranged, and yet how few you can find who can do anything you want to have done well—you find few who can analyse and abridge evidence well. Index making requires logical analysis to do it well, yet how few really good indexes we get. But it is impossible to look at French administrative and legislative documents, or at French scientific treatises, without being struck with their logical arrangement and clearness of exposition; and we find, in almost every curriculum of a French course of superior education, logic placed in a foremost rank, and we see its influence. In olden time, when logic was more cultivated in the English universities, we may trace its influence, in legal and clerical expositions, in greater clearness of arrangement and force of exposition than we now find prevalent.

Keeping in view the general proposition that it is requisite to reduce the topics for competition, there is now presented for consideration which language, dead or living, shall be the subject of pass, or merely qualifying examinations; and which, the subject of competition as a test of qualifications for the public service? As an officer who has, in his time, had much to do with the selection of gentlemen, men of liberal education, for first-class officers, and with their subsequent direction, I answer at once that the chief competition ought now to be in the vernacular, for the following reasons:—First, the small proportion who are found to write the mother tongue well and clearly. Out of several hundred gentlemen, sons of persons of wealth, who were examined for direct commissions in the army, the majority were plucked for bad English, for bad spelling, in fact for want of a common knowledge of the mother tongue. The bad English of the despatches of generals and superior officers in the Crimean war was notorious. King's and Queen's speeches are presentable as examples of bad English. It may be pleaded that these failures were not all by children of the university. But it was a subject of observation, that the translation of the most of them, were university statutes into English sent to the university commissioners, —translations by men of high classical attainments, into English which would not have been creditable to the scholars of a poor grammar school. Mr. D'Orsey, a member of the university, has advocated the urgent necessity of the special study of English. In respect to the selection of a language as a mental exercise, the great

European philologist, Grim, prefers German to either Greek or Latin, but he prefers the English to the German. Dr. Latham and other philologists do the same. On such impartial and competent authority I would rely, making no pretensions to any of my own. Reserving the dead and foreign languages for pass, or qualifying examinations, we should reduce the heads of competition from five, including two histories of peoples, and two literatures of peoples, to the vernacular, to mathematics and to the experimental sciences, which I think would be approved by the present state of opinion on the part of those conversant with the subject, including some experienced heads of preparatory schools. By this arrangement cram would be so far reduced as to be well nigh abolished. The Duke of Cambridge and the Council of Military Education have made important advances in the direction which I advocate. They have separated the literatures from the languages, so as to enable competitors to compete in the languages alone. The results of these changes have, I believe, been such as to justify and require further advances to be made in the same direction.
